



SERVQUAL MODEL TO ASSESS PATIENT SATISFACTION IN THE IN-PATIENT DEPARTMENT

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INTRODUCTION



What includes patient satisfaction in hospitals ?

- ✓ Effective medical practice
- ✓ Meeting necessities of patients
- ✓ Staff accessibility
- ✓ Communication
- ✓ Prompt services

What does patient satisfaction offer ?

- ✓ Brand goodwill
- ✓ Patient loyalty
- ✓ Referrals
- ✓ Increase revenue

STATEMENT OF PROBLEM

Motherhood Hospital, Chennai is a corporate tertiary level hospital specialised in maternal and childcare, functioning with 34 beds, with a level III NICU facility.

Two years ago in order to become more patient centred, the hospital completely restructured its care delivery model to improve the infrastructure and physical facilities being provided in the in- patient department.

It included:

- ✓ Incorporation of suite rooms, executive room
- ✓ Availability of amenities like the microwave, television, fridge in the patient room.
- ✓ The menu at the food & beverages were also looked into and customised to patient needs.

- ✓ In patient satisfaction < Outpatient satisfaction
- ✓ Need to assess how the patient perceives the quality of services being delivered in the in-patient department
- ✓ Work on the gaps in service delivery to improve performance
- ✓ Knowing the potential areas where the scope of improvement should be necessitated as patients are becoming more aware of their requirements.

REVIEW OF LITERATURE

STUDY	YEAR OF STUDY / AUTHORS	OUTCOME
Measuring quality health care delivery	Woodside et al (1989)	It is important to understand patient's satisfaction in providing responsive, quality healthcare delivery which is a fundamental requirement and the SERVQUAL is a reliable tool to measure the same.
The SERVQUAL model , Measuring customer satisfaction	Sixam et al (1998)	Assessing and measuring satisfaction of the patient and the perceived quality of service is an important issue for a healthcare provider to understand what is cherished by the patient and to know what and where the service can be altered to make possible improvement to improve the service delivery of the health care organisation. Hence SERVQUAL model has a reflection on the patient's satisfaction.
Patient satisfaction : A Review	Sixam et al (1998)	satisfaction as the condition of fulfilment with an activity, occasion and it is determined considerably by the assumptions of the customers and their encounters.
	Oliver (1981)	Satisfaction was also seen as the customers emotional feelings related to a perceived delivery of service
	Kotler (2003)	The feeling of happiness or displeasure as a result of comparing the products or service's outcome to their expectations.

REVIEW OF LITERATURE

STUDY	YEAR OF STUDY / AUTHORS	OUTCOME
Patient satisfaction and service delivery	Parasuraman (1985)	explained satisfaction in relation to service quality. He defined service quality as the gap between the expected quality of the service (patient expectation) and the perceived delivery of service (patient perception). If the patient expectations are more than the perceived level of services, then a gap arises and it calls for a service improvement. The SERVQUAL model was thus proposed by Parasuraman.
Assessing Patient's Satisfaction Using SERVQUAL Model: A Case of Sunyani Regional Hospital, Ghana	2014, Augustine Awuah Peprah ¹ , Bede Akorige Atarah ²	The result indicated that the overall satisfaction of patients concerning the service quality of the hospital was good. On the other hand, the gap scores showed negative gaps for four of the service quality dimensions out of six used in the study, indicating that patients were not satisfied with the service quality in relation to those dimensions. This therefore calls for management action to improve service delivery in those areas. These dimensions were Reliability, Communication/interpersonal relationship, Assurance, and Responsiveness. On the contrary, Tangibility and Empathy dimensions scored positive which affirms patients' impression about the service.
Measuring service quality in a university health clinic	2015, Anderson, E	The following factors play a critical role in the satisfaction of patients; the attitudes of nurses toward patients, the capacity to deliver prompt service without wasting time, ability to disseminate information to patients and the availability of up-to-date equipment.

SERVQUAL; A TOOL FOR MEASURING SERVICE QUALITY

Accounts Commission of Scotland, 1999a , Parasuraman 1985, 1988, designed the SERVQUAL model to recognize and focus on performance improvements that are required to guarantee that patients' expectations and assumptions are being met, the two expectations and perception for administration, taking into account both the service quality dimension and the gap score.

The SERVQUAL model in its original form contains a pair of 22 questions of Likert scale statement structure around the five-service quality dimension.



Tangibility

- Attributes of physical facilities in the healthcare organisation.
- It includes building, equipment, appearance of both the personnel and the devices that are used to communicate to the patients.



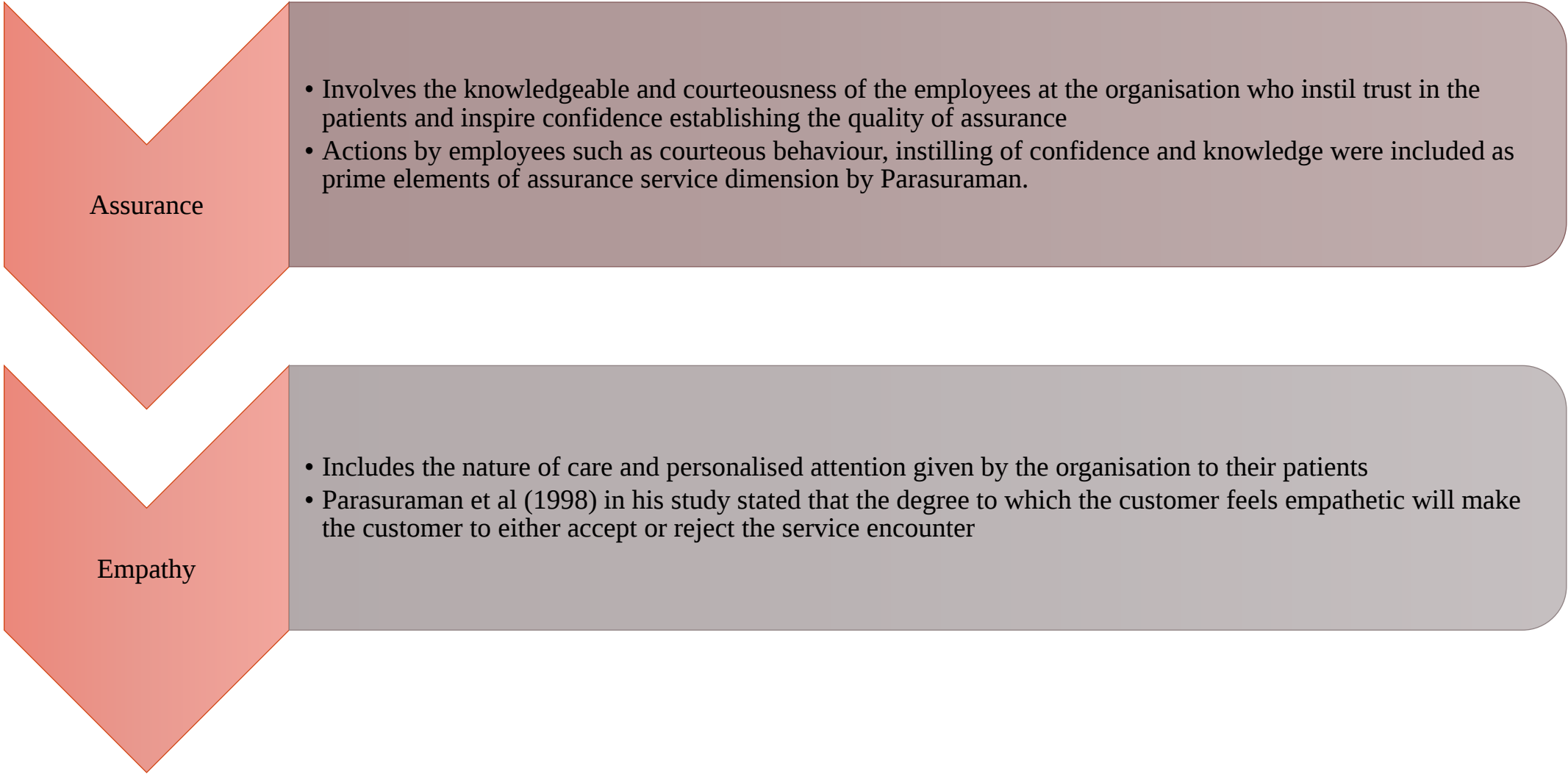
Reliability

- Refers to the ability to deliver the service in a dependable and manner of accuracy.
- Parasuraman (1988) stated that reliability is normally the most important attribute customers seek when it comes to service dimensions. He also stated that the conversion of negative wordings to positive wordings increased the accuracy of the dimension.



Responsiveness

- Refers to the desire or the willingness of the employees at the organisation to assist the patients and deliver a prompt service.
- Includes the exact time used to deliver the prompt services to the patient appropriately, how quickly the requests by the patients were responded to.



The diagram consists of two vertically stacked sections. Each section features a red chevron pointing downwards on the left side, which contains a label. To the right of each chevron is a grey rounded rectangular box containing a bulleted list of descriptions. The top section is for 'Assurance' and the bottom section is for 'Empathy'.

Assurance

- Involves the knowledgeable and courteousness of the employees at the organisation who instil trust in the patients and inspire confidence establishing the quality of assurance
- Actions by employees such as courteous behaviour, instilling of confidence and knowledge were included as prime elements of assurance service dimension by Parasuraman.

Empathy

- Includes the nature of care and personalised attention given by the organisation to their patients
- Parasuraman et al (1998) in his study stated that the degree to which the customer feels empathetic will make the customer to either accept or reject the service encounter

SERVQUAL; A TOOL FOR MEASURING SERVICE QUALITY

- In the SERVQUAL model, each question appears twice.
- One measure the expectations of the individual to receive the delivery from the healthcare organisation and the other measures the perceived level of receiving the service by them.
- The twenty- two sets of questions are designed to fit the five dimensions of service quality namely, tangibility, reliability, responsiveness, assurance and empathy.
- The scale for measuring the statements are on a five point Likert scale namely; “strongly disagree” (1), “disagree” (2), “neutral” (3), “agree” (4), “strongly agree” (5).
- The end of the scale “strongly agree” corresponds to high degree of perception and expectations

SERVQUAL TOOL - INTERPRETATION

- A service quality is said to occur when the levels of perceptions meet the levels of expectations.
- If the expectations levels are higher than the perception level, a gap is said to occur.
- Presence of a negative gap means; the expectation levels are lesser than the perceived level of service.
- A positive gap score indicates that the expectation levels are meeting the perception level of the service delivery.
- The gap score for each statement is calculated by subtracting the expectation and the perceived score for each statement.
- The overall gap score for each dimension can be calculated by aggregating the individual statement gap score.
- This helps the organisation in recognising which service dimension is falling short in meeting the patient expectations and scope of improvement needs to be necessitated.

UTILIZATION OF SERVQUAL MODEL

- ✓ Comparing performance across different customer groups
- ✓ Comparing the performance across different service quality dimension
- ✓ Understanding the different customers in the organisation
- ✓ Understanding the current service quality of the organisation
- ✓ Scope of quality improvement programs

ADVANTAGES OF SERVQUAL MODEL

- ✓ Can be accepted as a standard to measure different aspects of service quality dimension.
- ✓ The model proves to be reliable.
- ✓ The model has shown to be valid for several services sectors.
- ✓ Parsimonious in nature as the questionnaire can be filled swiftly and in an easy manner as it has limited number of items.
- ✓ It adapts standardised analysis procedure for interpretations and result findings.

RESEARCH QUESTION

What is the extend of patient satisfaction based on the dimensions of the SERVQUAL model in the In-patient services provided at Motherhood Hospital ?

BROAD OBJECTIVE

To see which is the dimension of service quality that doesn't satisfy the patients in the In-patient Department of Motherhood Hospital.

SPECIFIC OBJECTIVE

- To compute the gap score between the expected and perceived level of services delivered to the patient
- To delineate the areas where there is a scope of improvement in the service delivery at the In- patient department of Motherhood Hospital, Chennai which would result in increased perception on the part of the patients.

METHODOLOGY

RESEARCH DESIGN: Cross – sectional Analytical study

DURATION OF STUDY: April 5, 2021 – June 5, 2021

SAMPLING TECHNIQUE: Simple random sampling

SAMPLE SIZE: All patients getting admitted at the inpatient facility of Motherhood Hospital during the study durations were included in the study. (Approximates 120 respondents (with an average of 60 in patients per month).

EXCLUSION CRITERIA : Patients admitted in the COVID ward were excluded due to entry restrictions based on hospital policy.

STUDY SETTING: The study was conducted at Motherhood Hospital, Chennai, which is a level 3 super speciality hospital chain that provides comprehensive Women & Child Care

DATA COLLECTION : The “expectation” set of questions were given to the patient / attender on the first day of their stay at the hospital to know the levels of expectation to a service delivery. The “perception” set of questions were given to the patient / attender prior to their discharge from the hospital (average length of stay being 2.5 days for normal delivery cases, 3.5 days for LSCS cases). After conducting the survey all the questionnaires were collected for tabulation and analysis.

SERVQUAL QUESTIONNAIRE INCLUDED IN THE STUDY

CODE	EXPECTATIONS	(E)	PERCEPTIONS	(P)	P-E
	This survey deals with your (patient's) opinions of IPD services in a hospital.		The following statements relate to how your (patient's) perceive the services received at the IPD at Motherhood Hospital		
TANGIBLE					
T1	Medical instruments and physical facilities are visually appealing		Medical instruments and physical facilities provided in IPD are visually appealing		
T2	Employees' uniforms are clean, nice, and neat.		Employees' uniforms are clean, nice, and neat.		
T3	Clean, adequate supplies, and well-maintained rooms		Clean, adequate supplies, and well-maintained rooms		
T4	Good lighting in every room		Good lighting in every room		
T5	Suitable temperature in the rooms		Suitable temperature in the rooms		
T6	Meals served are clean and hygienic.		Meals served are clean and hygienic.		
T7	Meals served are delicious		Meals served are delicious		
T8	The atmosphere of every room is cozy		The atmosphere of every room is cozy		
T9	The scent in every room is refreshing.		The scent in every room is refreshing.		
AVERAGE TANGIBLE SERVQUAL SCORE					

SERVQUAL QUESTIONNAIRE INCLUDED IN THE STUDY

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	This survey deals with your (patient's) opinions of IPD services in a hospital.		The following statements relate to how your (patient's) perceive the services received at the IPD at Motherhood Hospital		
RELIABILITY					
RL1	Appropriate employee responses		Appropriate responses by the doctors and nurses		
RL2	Medical treatments are well explained.		Maternity & Paediatric treatments are well explained.		
RL3	Available and adequate family visiting times		Available and adequate family visiting times considering COVID restrictions		
RL4	All medical & non- medical activities are well scheduled		All medical and non- medical activities are well scheduled		
RL5	The employees solve the problems sincerely		The staffs solved the problems sincerely		
RL6	All equipment (AC, TV, fridge, microwave) works properly.		All equipment (AC, TV, fridge, microwave) works properly.		
AVERAGE RELIABILITY SERVQUAL SCORE					

SERVQUAL QUESTIONNAIRE INCLUDED IN THE STUDY

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	This survey deals with your (patient's) opinions of IPD services in a hospital.		The following statements relate to how your (patient's) perceive the services received at the IPD at Motherhood Hosnital		
RESPONSIVNESS					
R1	Employees give clear, understandable information		Employees give clear, understandable information		
R2	Appropriate and prompt services		Appropriate and prompt services		
R3	Quick medical treatment response when needed		Quick medical treatment response when needed		
ASSURANCE					
A1	Feeling of safety in receiving care		Feeling of safety in receiving care		
A2	Employee behaviour instils confidence		Employee behaviour instils confidence		
AVERAGE ASSURNACE SERVQUAL SCORE					

SERVQUAL QUESTIONNAIRE INCLUDED IN THE STUDY

CODE	EXPECTATIONS	(E)	PERCEPTIONS	(P)	P-E
	This survey deals with your (patient’s) opinions of IPD services in a hospital.		The following statements relate to how your (patient’s) perceive the services received at the IPD at Motherhood Hospital		
EMPATHY					
E1	Individual care given		Individual care is given		
E2	Nurses understand patient’s needs		Nurses understand needs appropriately		
E3	No discrimination done between patients by the hospital staffs		No discrimination done between patients by the hospital staffs		
AVERAGE EMPATHY SERVQUAL SCORE					

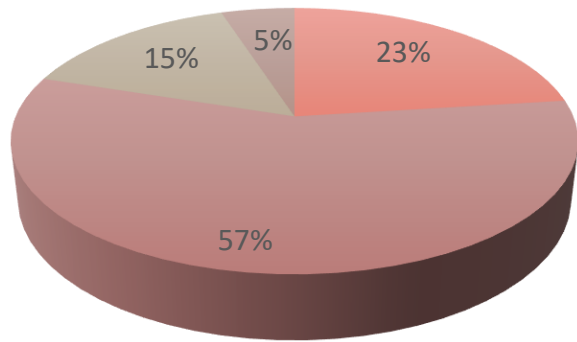
SCORES	
Very Bad	1
Bad	2
Average	3
Good	4
Very Good	5

PLAN FOR DATA ANALYSIS

Dimension	Code	Performance	Expectation	Gap score	Average Servqual perception score	Dimension Weight	Average unweighted gap score	Weighted Gap Score
		Average	Average					
Tangibility	T1							
	T2							
	T3							
	T4							
	T5							
	T6							
	T7							
	T8							
	T9							
Reliability	RL1							
	RL2							
	RL3							
	RL4							
	RL5							
	RL6							
Responsiveness	R1							
	R2							
	R3							
Assurance	A1							
	A2							
Empathy	E1							
	E2							
	E3							

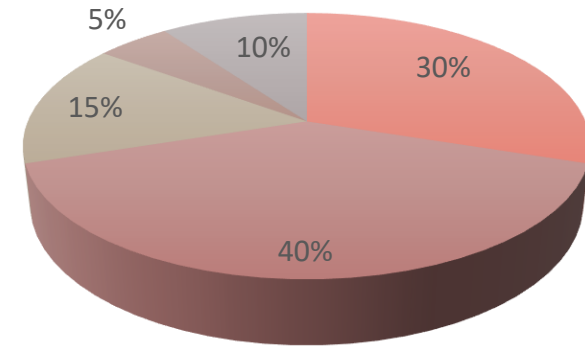
RESULTS

Age Group of Respondents



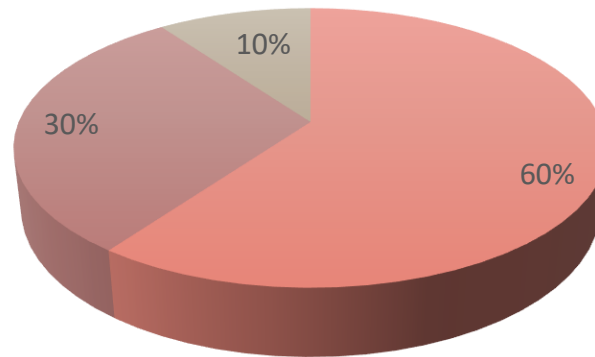
■ <31 years ■ 31-40 years ■ 41-50 years ■ >51 years

Reason For Admission



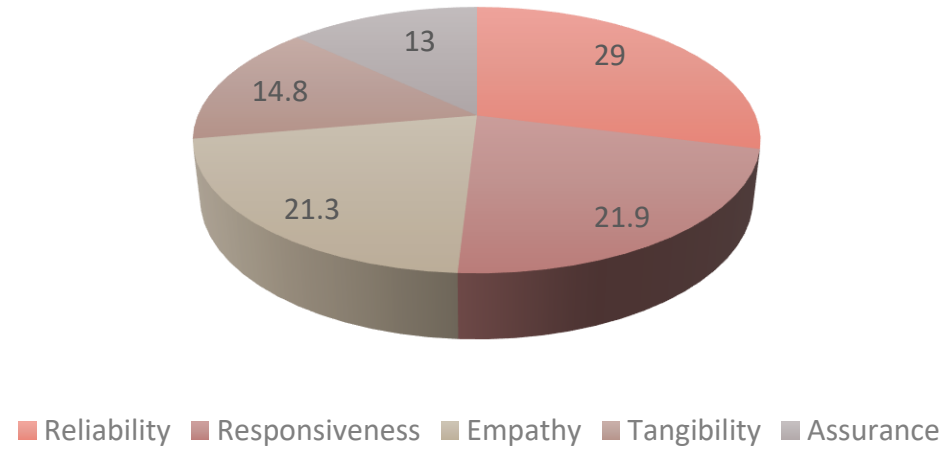
■ Normal Delivery ■ LSCS Delivery ■ MTP ■ Hysterectomy ■ Others

Length Of Stay



■ 1.5- 2 days ■ 2.5 -3 days ■ >3 days

Average Importance Weight



PERCEPTION THRESHOLD

Based on arguments put forth in the work of Heskett, Sasser, and Schlesinger (1997), Azim (2008) put forth 80% as the benchmark as the perception threshold for customer satisfaction. 80% threshold would mean that a perception level score of minimum 4 out of a maximum 5 should be considered for any service dimension and a score lesser than 4 is taken as a non-acceptable level for that service dimension.

SERVQUAL RESULTS – THE TANGIBILITY DIMENSION

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Tangibility
1	T1	5	4	0.22	4.1
2	T2	4	5	-0.74	
3	T3	4	5	-0.74	
4	T4	4	4	0.07	
5	T5	4	5	-0.71	
6	T6	4	5	-0.66	
7	T7	4	5	-0.63	
8	T8	4	5	-0.67	
9	T9	4	5	-0.59	

Dimension Weight	14.8
Average unweighted Tangibility gap score	-0.49
Weighted gap score	-7.31

SERVQUAL RESULTS – THE REALIBILTY DIMENSION

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Reliability
1	RL1	4	5	-0.7	4.5
2	RL2	4	5	-0.6	
3	RL3	4	5	-0.51	
4	RL4	5	5	-0.38	
5	RL5	5	5	-0.38	
6	RL6	5	5	-0.47	

Dimension Weight	29
Average unweighted Reliability gap score	-0.50
Weighted gap score	-14.69

SERVQUAL RESULTS – THE RESPONSIVENESS DIMENSION

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Responsiveness
1	R1	5	4	0.22	4.33
2	R2	4	5	-0.74	
3	R3	4	5	-0.74	

Dimension Weight	21.9
Average unweighted Responsiveness gap score	-1.26
Weighted gap score	-27.6

SERVQUAL RESULTS – THE ASSURANCE DIMENSION

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Responsiveness
1	A1	4	4	0.07	4
2	A2	4	5	-0.71	

Dimension Weight	13
Average unweighted Assurance gap score	-0.64
Weighted gap score	-8.32

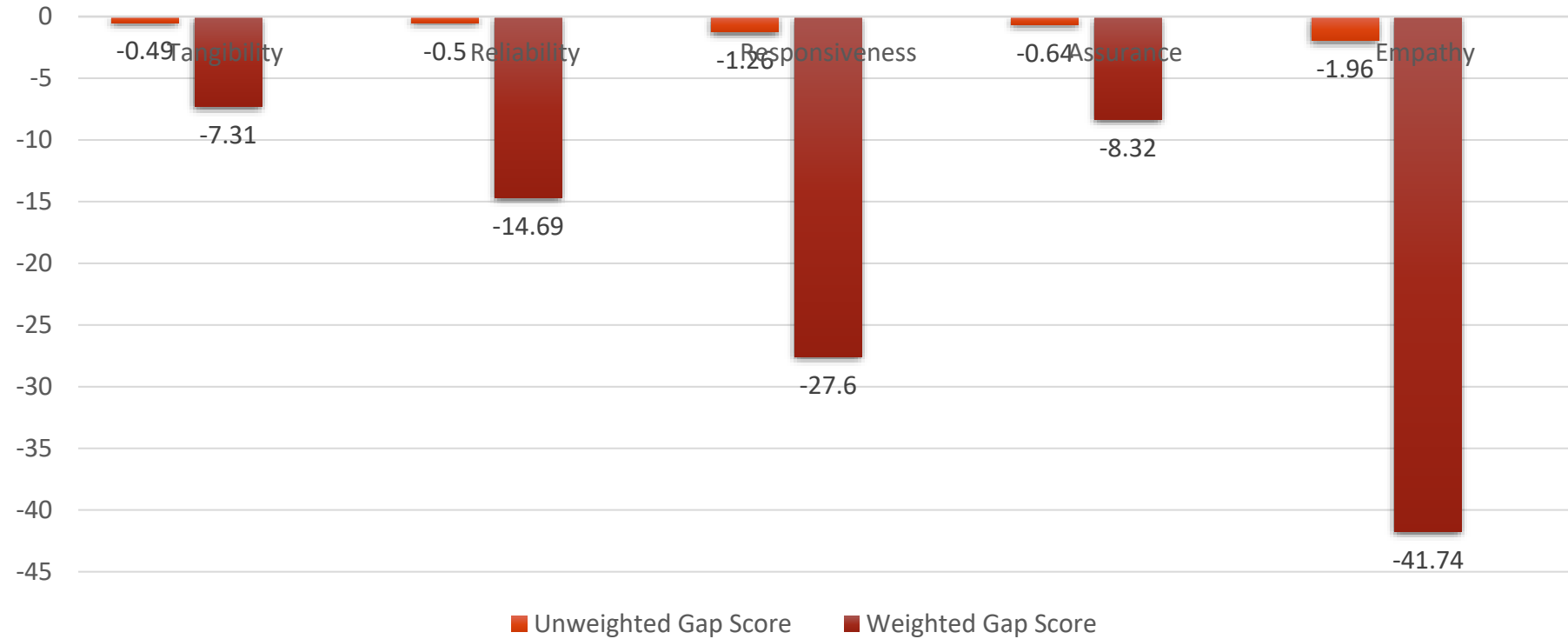
SERVQUAL RESULTS – THE EMPATHY DIMENSION

S.No	Code	Average Perception Score	Average Expectation Score	Average Gap Score	Average Perception SERVQUAL score for Empathy
1	E1	4	5	-0.66	4
2	E2	4	5	-0.63	
3	E3	4	5	-0.67	

Dimension Weight	21.3
Average unweighted Empathy gap score	-1.96
Weighted gap score	-41.74

DISCUSSION

Gap Scores



IMMEDIATE TERM INTERVENTION

S.no	Intervention Area	Gap Score
1	Empathy- Individual care given	-0.66
2	Empathy- Understanding by nurses / doctors	-0.63
3	Empathy- No Discrimination faced	-0.67
4	Responsiveness- Promptness of services delivered	-0.74
5	Responsiveness- Response time	-0.74

For areas related to personal attention, discrimination, understanding of the patients, sensitivity and behavioural training of the employees are required. For areas like the promptness in the services delivered and response time, the organisation needs to relook at the TAT and availability of staffs in between and during the shifts.

INTERMEDIATE TERM INTERVENTION

S.no	Intervention Area	Gap Score
1	Reliability- Employee responses	-0.7
2	Reliability- Explanation of Medical treatment	-0.6
3	Reliability- Family visiting times	-0.51
4	Reliability- Scheduling of medical and non-medical services	-0.38
5	Reliability- Problem solving by employees	-0.38

For areas like employee responses to the patients, explanation of the medical treatment to the patients by the doctors and nurses before and after any procedure and problem solving by employees, sensitivity and employee behaviour training are required. A stringent grievance redressal system can be kept in place to solve the problems of the patients with formation of a redressal committee in the hospital. For problems related to the discrepancies in the scheduling of the medical services like the waiting time for admission to get a hospital bed, turn over time to change the saline drips, timely delivery of the medicines, the root cause analysis to be done and reasons for delay to be rectified by the concerned head of the department. In relation to the non-medical services like delivery of meal, housekeeping, a checklist to be maintained tracking the time of order and delivery of the service by the ward nurses and root cause analysis to be done to rectify the reason for delay.

LONG TERM INTERVENTION

S.no	Intervention Area	Gap Score
1	Assurance- Instilling confidence by employees	-0.71
2	Tangibility – Room temperature	-0.71
3	Tangibility- Cleanliness of meals served	-0.66
4	Tangibility – Taste of meals served	-0.63
5	Tangibility- Cosiness of rooms	-0.67
6	Tangibility – Scent in rooms	-0.59
7	Tangibility- Employee appearance	-0.74
8	Tangibility – Cleanliness of rooms	-0.74

For areas related to instilling confidence by the employees, sensitivity and behaviour training of the employees can be done. For other areas of tangibility, it is easy to intervene and bring about changes like provision of better air conditioning facility 24*7, timely maintenance of the air conditioner to maintain proper cooling, grooming of the employees, timely refreshing of the rooms with room fresheners in between shifts. A checklist can be maintained for the same.

CONCLUSION

- The findings on the primary study done based on the SERVQUAL tool brought out number of managerial implications that the hospital needs to look into to obtain an increase in the perception score of the patients.
- Considering that the grievance redressal influences the patient satisfaction, the service requirements and the issues faced by them should be dealt in time and with courtesy, so as to obtain an increase in the perception score.
- The hospital needs to develop processes and training of the employees to build a strong and long-term relationship with the patients.

LIMITATION OF STUDY

- The present research limits itself to the application of SERVQUAL tool, hence all the limitations of the SERVQUAL model also implies on this study.
- One of the issues is that the SERVQUAL perception and expectation scores are obtained only after the service is delivered but the expectation scores are formed much before the delivery of services, questioning the reliability of the tool, (Palmer, 2005).
- Moreover the service expectations of a patient can be based on previous service experience and can expectations can vary from very instances affecting the service expectation score and customers have varied expectations hence this might affect the internal validity of the tool over a period of time.

THANK YOU